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**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

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First Named Inventor or Application Identifier

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09/417068

10/13/99

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:Assistant Commissioner for Patents
Box Patent Application
Washington, DC 202311. ☐ Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)2. ☒ Specification Total Pages 233. ☒ Drawing(s) (35 USC 113) Total Sheets 74. ☒ Oath or Declaration Total Pages 1a. ☐ Newly executed (original or copy)b. ☒ Unexecuted for information purposesc. ☐ Copy from a prior application (37 CFR 1.63(d))
(for continuation/divisional with Box 17 completed)
[Note Box 5 below]i. ☐ **DELETION OF INVENTOR(S)**
Signed Statement attached deleting inventor(s)
named in the prior application, see 37 CFR
1.63(d)(2) and 1.33(b).5. ☐ Incorporation By Reference (useable if Box 4c is checked)
The entire disclosure of the prior application, from which a copy of the
oath or declaration is supplied under Box 4c, is considered as being
part of the disclosure of the accompanying application and is hereby
incorporated by reference therein.6. ☐ Microfiche Computer Program (Appendix)7. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)a. ☐ Computer Readable Copyb. ☐ Paper Copy (identical to computer copy)c. ☐ Statement verifying identity of above copies**ACCOMPANYING APPLICATION PARTS**8. ☐ Assignment Papers (cover sheet & document(s))9. ☐ 37 CFR 3.73(b) Statement ☐ Power of Attorney
(when there is an assignee)10. ☐ English Translation Document (if applicable)11. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS
Citations12. ☐ Preliminary Amendment13. ☒ Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)14. ☐ Small Entity Statement(s) ☐ Statement filed in prior application
Status still proper and desired15. ☐ Certified Copy of Priority Document(s)
(if foreign priority is claimed)16. ☐ Other: _____

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No. ____/____**18. CORRESPONDENCE ADDRESS**☒ Customer Number or Bar Code Label05514
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CLAIMS	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
	TOTAL CLAIMS (37 CFR 1.16(c))	12-20 =	0	X \$ 18.00 =	\$0.00
	INDEPENDENT CLAIMS (37 cfr 1.16(b))	4-3 =	1	X \$ 78.00 =	\$78.00
	MULTIPLE DEPENDENT CLAIMS (if applicable) (37 CFR 1.16(d))			\$260.00 =	\$0.00
				BASIC FEE (37 CFR 1.16(a))	\$760.00
	Total of above Calculations =				\$838.00
	Reduction by 50% for filing by small entity (Note 37 CFR 1.9, 1.27, 1.28).				
	TOTAL =				\$838.00

19. Small entity status

- a. ☐ A Small entity statement is enclosed
- b. ☐ A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.
- c. ☐ Is no longer claimed.

20. ☒ A check in the amount of \$ 838.00 to cover the filing fee is enclosed.

21. ☐ A check in the amount of \$ _____ to cover the recordal fee is enclosed.

22. The Commissioner is hereby authorized to credit overpayments or charge the following fees to Deposit Account No. 06-1205:

- a. ☒ Fees required under 37 CFR 1.16.
- b. ☒ Fees required under 37 CFR 1.17.
- c. ☐ Fees required under 37 CFR 1.18.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED	
NAME	Joseph W. Ragusa (38,586)
SIGNATURE	<i>Joseph W. Ragusa</i>
DATE	October 12, 1999

TITLE OF THE INVENTION
FACSIMILE APPARATUS, CONTROL METHOD THEREFOR, AND
COMPUTER-READABLE STORAGE MEDIUM

5 BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

The present invention relates to a facsimile
apparatus capable of performing facsimile communication
10 via the Internet, control method therefor, and
computer-readable storage medium.

DESCRIPTION OF THE RELATED ART

In recent years, facsimile apparatuses using the
15 e-mail (electronic mail)-based Internet or session-based
Internet are proposed as a facsimile apparatus capable of
performing facsimile communication via the Internet.

However, even the ITU-T does not recommend any
standard of facsimile communication via the conventional
20 Internet, and each manufacturer is developing such
facsimile apparatuses based on its own standard. For this
reason, facsimile communication via the Internet can only
be realized between apparatuses made by the same
manufacturer.

25 E-mail-based facsimile communication via the
Internet can only communicate in a so-called primitive mode.

Session-based facsimile communication via the Internet fails in communication if transmission data is delayed in the Internet.

5

SUMMARY OF THE INVENTION

It is an object of the present invention to provide a facsimile apparatus for reliably transmitting information of a target original by facsimile communication via the Internet, control method therefor, and
10 computer-readable storage medium.

To achieve the above object, a facsimile apparatus according to the present invention comprises the following arrangement.

That is, a facsimile apparatus capable of performing
15 facsimile communication via the Internet, comprises communication means capable of performing session-based facsimile communication and e-mail-based facsimile communication via the Internet, and control means for selecting either one of session-based data communication
20 form and e-mail-based data communication form in accordance with a selected transmission mode, and causing the communication means to execute facsimile communication in accordance with the selected data communication form.

For example, when the transmission mode is set to
25 automatic selection, the control means preferably selects the e-mail-based data communication form for an A4 original

size, and the session-based data communication form for a B4 or A3 original size.

To achieve the above object, a facsimile apparatus control method according to the present invention comprises
5 the following steps.

That is, a facsimile apparatus control method capable of performing facsimile communication via the Internet, comprises the steps of selecting either one of
10 session-based data communication form and e-mail-based data communication form in accordance with a selected transmission mode, and causing a communication unit capable of performing session-based facsimile communication and e-mail-based facsimile communication to execute facsimile communication in accordance with the selected data
15 communication form.

In this control method, when the transmission mode is set to automatic selection, it is preferable that the e-mail-based data communication form be selected for an A4 original size, and the session-based data communication
20 form be selected for a B4 or A3 original size.

Further, there is provided a computer-readable storage medium capable of realizing the facsimile apparatus and control method therefor.

Other features and advantages of the present
25 invention will be apparent from the following description taken in conjunction with the accompanying drawings, in

which like reference characters designate the same or similar parts throughout the figures thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

5 Fig. 1 is a block diagram showing the whole arrangement of a facsimile system including a facsimile apparatus according to the first embodiment of the present invention;

10 Fig. 2 is a block diagram showing the arrangement of a provider included in the facsimile system according to the first embodiment of the present invention;

 Fig. 3 is a flow chart showing communication network selection control in a control unit according to the first embodiment of the present invention;

15 Fig. 4 is a flow chart showing communication network selection control in the control unit according to the first embodiment of the present invention;

20 Fig. 5 is a flow chart showing communication network selection control in the control unit according to the first embodiment of the present invention;

 Fig. 6 is a flow chart showing communication network selection control in the control unit according to the first embodiment of the present invention; and

25 Fig. 7 is a flow chart showing the feature of communication network selection control in a control unit according to the second embodiment of the present

invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Preferred embodiments of a facsimile apparatus
5 according to the present invention will be described in
detail below with reference to the accompanying drawings.
[First Embodiment]

Fig. 1 is a block diagram showing the whole
arrangement of a facsimile system including a facsimile
10 apparatus according to the first embodiment of the present
invention. The arrangement of a facsimile apparatus (FAX)
A connected to this system is shown within the broken frame.

In Fig. 1, reference numeral 2 denotes an NCU (Net
Control Unit) which is connected to a public switched
15 telephone network (PSTN) 38 and telephone line terminal
(telephone set 4), and controls connection to the public
switched telephone network, switching to a data
communication path, and holding of the loop in order to use
the PSTN for data communication and the like. The NCU 2
20 connects a telephone line 2a to the telephone set side if
a signal level output from a control unit 20 (to be described
later) via a signal line 20a is "0", and to the facsimile
apparatus side if the signal level is "1". In a normal state,
the telephone line 2a is connected to the telephone set
25 side.

The facsimile system comprises the telephone set 4.

Reference numeral 6 denotes a hybrid circuit for separating a signal of transmission system and a signal of reception system by a general method, transmitting a transmission signal from an adder circuit 12 (to be described later) to the telephone line 2a via the NCU 2, and receiving a reception signal from a partner side via the NCU 2 to transmit the reception signal to a modulator/demodulator 8 (to be described later) via a signal line 6a.

The modulator/demodulator 8 modulates/demodulates data based on the ITU-T recommendations V.8, V.21, V.27ter, V.29, V.17, and V.34. The modulator/demodulator 8 modulates transmission data output to a signal line 20b to output the modulated data to a signal line 8a, and demodulates reception data output to the signal line 6a to output the demodulated data to a signal line 8b. The transmission mode of the modulator/demodulator 8 is designated in accordance with a signal output from the control unit 20 (to be described later) via a signal line 20c.

Reference numeral 10 denotes an ANSam output circuit for transmitting an ANSam signal based on the ITU-T recommendation. The ANSam output circuit 10 outputs the ANSam signal to a signal line 10a when a signal of signal level "1" is output to a signal line 20d, and does not output any signal to the signal line 10a when a signal of signal level "0" is output to the signal line 20d.

The adder circuit 12 receives information on the signal line 8a and information on the signal line 10a, and outputs the sum of these pieces of input information to a signal line 12a.

5 Reference numeral 14 denotes a reader unit for outputting to a signal line 14a image data obtained by reading an original set on an original table (not shown) by general procedures.

10 Reference numeral 16 denotes a printer unit for line-sequentially printing information output to a signal line 20e.

15 Reference numeral 18 denotes a memory for storing image data read by the reader unit 14, data obtained by encoding the image data, externally received data, data obtained by decoding the received data, and the like.

20 Reference numeral 24 denotes an operation unit which includes a one-touch dial key, abbreviated dial key, ten-key pad, * and # keys, set key, start key, stop key, registration key for registering a dial-up connection telephone number, transmission mode selection button, and various function keys, and outputs a pulse signal to a signal line 24a in accordance with a pressed key. The transmission mode includes three, "automatic", "e-mail-based", and "session-based" modes.

25 Reference numeral 22 denotes a display unit for displaying the Internet selection state and the like. When

a clear pulse is generated on a signal line 22f, the display unit 22 displays "automatic selection". Then, the display unit 22 displays "e-mail-based communication via the Internet is selected" or "session-based communication via the Internet is selected" depending on a pulse signal output to the signal line 24a in accordance with transmission mode selection operation via the operation unit 24. The display unit 22 outputs to a signal line 22a a signal "0" when "automatic selection" is displayed, a signal "1" when "e-mail-based communication via the Internet is selected" is displayed, and a signal "2" when "session-based communication via the Internet is selected" is displayed.

Reference numeral 26 denotes a signal delay time registration unit for registering via a signal line 26a a signal delay time used to communicate via the Internet. In the signal delay time registration unit 26, signal delay times can be individually registered for all one-touch dial destinations.

Reference numeral 28 denotes an original size detection unit for detecting the original size set on the original table (not shown). The original size detection unit 28 outputs a signal "0" to a signal line 28a when an A4-size original is set, a signal "1" when a B4-size original is set, and a signal "2" when an A3-size original is set.

Reference numeral 30 denotes a dial-up connection

destination telephone number registration unit for registering via a signal line 32a a telephone number to be dialed up.

Reference numeral 31 denotes a one-touch dial
5 connection destination registration unit for registering the IP address of a provider at a connection destination that is input via the ten-key pad (not shown) of the operation unit 24, and information of a telephone number transmitted from the provider using the PSTN, via a signal
10 line 31a in correspondence with the one-touch dial (not shown) of the operation unit 24.

Reference numeral 32 denotes a facsimile apparatus (FAX B); 34, an Internet service provider (to be referred to as a provider) A; 36, a provider B; 38 and 40, PSTNs;
15 and 42, the Internet.

The facsimile apparatus A comprises the control unit 20 which controls the respective units of the facsimile apparatus A, and determines based on the transmission mode input via the operation unit 24 whether session-base
20 facsimile communication via the Internet is executed or e-mail-based facsimile communication via the Internet is executed. More specifically, in the "automatic selection" transmission mode, the control unit 20 executes e-mail-based facsimile communication via the Internet for
25 an A4 original size, and session-based facsimile communication via the Internet for a B4 or A3 original size.

Note that the control unit 20 is constituted by a CPU for controlling the whole facsimile apparatus A in accordance with programs, ROM storing the programs and control codes of the CPU, and RAM having a work area used
5 when the CPU executes control, and areas for various tables and the like.

Fig. 2 is a block diagram showing the arrangement of a provider included in the facsimile system according to the first embodiment of the present invention.

10 In Fig. 2, reference numeral 52 denotes a gateway for connecting the facsimile apparatus to another network organization on the Internet; 54, a facsimile database for storing the reception capabilities and reception status information of a plurality of facsimile apparatuses
15 connected to the provider by dial-up operation; 56, a dial-up server for connecting the facsimile apparatus to a client via a modem 62 and PSTN in accordance with a communication protocol such as PPP; 58, a DNS (Domain Name System) server for providing domain name services; and 60,
20 a mail server for storing e-mail and facsimile information transmitted/received using SMTP (Simple Mail Transfer Protocol) as the host protocol of TCP/IP (Transmission Control Protocol/Internet Protocol).

Communication network selection control executed by
25 the CPU of the control unit 20 will be explained with reference to Figs. 3 to 6.

Figs. 3 to 6 are flow charts, respectively, showing communication network selection control in the control unit according to the first embodiment of the present invention.

Step S2: The CPU initializes the signal delay time
5 registration unit 26 via the signal line 26a.

Step S4: The CPU outputs a clear pulse to the signal line 22f to change the Internet selection state displayed on the display unit 22 to "automatic selection".

Step S6: The CPU outputs a signal of signal level "0"
10 to the signal line 20a to disable CML (Connect Modem to Line).

Step S8: The CPU outputs a signal of signal level "0" to the signal line 20d not to transmit any ANSam signal.

Step S10: The CPU checks on the basis of information
15 output from the operation unit 24 to the signal line 24a whether registration of a dial-up connection destination in the dial-up connection destination registration unit 30 is requested. If NO (registration is not requested) in step S10, the CPU advances to step S14.

20 Step S12: If YES (registration is requested) in step S10, the CPU registers in the registration unit 30 via the signal line 30a the telephone number of a connection destination to be connected by dial-up operation that is input via the operation unit 24.

25 Step S14: The CPU checks on the basis of information output from the operation unit 24 to the signal line 24a

whether registration of a one-touch dial in the one-touch dial connection destination telephone number registration unit 31 is requested. If NO (registration is not requested) in step S14, the CPU advances to step S18.

5 Step S16: If YES (registration is requested) in step S14, the CPU registers in the registration unit 31 via the signal line 31a the IP address of a connection destination to be connected by the one-touch dial, and a telephone number for connecting the facsimile apparatus to the
10 provider connected by the IP address, which IP address and telephone number are input via the operation unit 24.

 Steps S18 and S20: The CPU checks on the basis of information on the signal line 31a whether a call is selected (step S18). If NO (no call is selected) in step
15 S18, the CPU performs another predetermined processing in step S20.

 Step S22: If YES (call is selected) in step S18, the CPU dials a telephone number to be dialed up on the basis of information on the signal line 31a to perform dial-up
20 connection.

 Step S24: The CPU checks which type of Internet for facsimile communication is selected on the basis of information on the signal line 24a. If "automatic selection" is selected, the CPU advances to step S26; if
25 "e-mail-based Internet" is selected, to step S28; or if "session-based Internet" is selected, to step S32.

Step S26: If "automatic selection" is selected in step S24, the CPU checks the original size placed on the original table (not shown) on the basis of information on the signal line 28a. If the original size is A4, the CPU
5 advances to step S28; or if the original size is B4 or A3, to step S32.

Step S28: The CPU starts executing TCP/IP.

Step S30: The CPU converts image data read by the reader unit 14 or image data printed at the printer unit
10 16 into A4-size information on the basis of a Tiff (Tag image file format) format, and transmits the MH-encoded image data obtained by this conversion via the e-mail-based Internet in accordance with MIME (Multipurpose Internet Mail Extensions) of SMTP.

15 Step S32: The CPU starts executing TCP/IP.

Step S34: The CPU obtains data representing the reception capability of the receiving-side facsimile apparatus B from the facsimile database 54 of the provider, and determines the encoding method and the receiving-side
20 output original size and resolution on the basis of the obtained data and the transmission mode of the transmitting-side apparatus (facsimile apparatus A). In the first embodiment, for example, if the CPU determines that it is unsuitable to transmit a B4- or A3-size original
25 at an equal magnification, the CPU reduces the original data to A4-size data. The CPU transmits image data read by the

reader unit 14 or image data printed at the printer unit 16 via the session-based Internet in accordance with determined transmission specifications.

According to the first embodiment, in
5 facsimile-communicating an original when the Internet selection state on the operation unit 24 is "automatic selection", the original is communicated by selecting the e-mail-based Internet for an A4 original size, and the session-based Internet for a B4 or A3 original size. At
10 the same time, original information is transmitted in accordance with the transmission mode of its own apparatus, the encoding method determined based on the reception capability of a facsimile apparatus at a reception destination, and the receiving-side output original size
15 and resolution. Although the original size may change between the transmitting side and receiving side, original information can be transmitted as transmission data coping with the receiving-side reception capability, and original information to be facsimile-communicated can be reliably
20 transmitted to the receiving side.

[Second Embodiment]

The second embodiment will be described. A difference from the first embodiment will be mainly described in the second embodiment, and a repetitive
25 description thereof will be omitted. The second embodiment selects the session-based Internet when the

signal delay time to a calling destination is shorter than a predetermined time, and selects the e-mail-based Internet when the signal delay time is longer than the predetermined time. More specifically, the signal delay time of each
5 calling destination is registered in a signal delay time registration unit 26 in advance. In facsimile communication via the Internet, which type of Internet is selected is determined based on the signal delay time of the calling destination registered in the signal delay time
10 registration unit 26.

Fig. 7 is a flow chart showing the feature of communication network selection control in a control unit according to the second embodiment of the present invention.

15 Step S42: The CPU checks which type of Internet for facsimile communication is selected on the basis of information on a signal line 24a. If "automatic selection" is selected, the CPU advances to step S44; if "e-mail-based Internet" is selected, to step S28 in Fig. 5; or if
20 "session-based Internet" is selected, to step S48.

Step S44: The CPU receives via a signal line 26a the signal delay time of each calling destination registered in advance in the signal delay time registration unit 26. The CPU checks whether the signal delay time of the current
25 calling destination is, e.g., 3 sec or longer. If YES (signal delay time is equal to or longer than 3 sec) in step

S44, the CPU executes TCP/IP (step S28) and communicates via the e-mail-based Internet (step S30).

Step S48: If NO (signal delay time is shorter than 3 sec or is not registered) in step S44, the CPU registers
5 the determination result in a one-touch dial connection destination telephone number registration unit 31 in correspondence with the calling destination. At the same time, the CPU starts executing TCP/IP. The CPU advances to step S34 to communicate via the session-based Internet.

10 In the second embodiment, the current determination result is registered in the one-touch dial connection destination telephone number registration unit 31 in step S48. So long as facsimile communication is done for the same calling destination in next and subsequent operations,
15 Internet selection information registered in the registration unit 31 can be used upon one-touch dialing of the calling destination. This can eliminate Internet selection based on the signal delay time.

According to the second embodiment, when the signal
20 delay time of each calling destination registered in the signal delay time registration unit 26 is longer than a predetermined time, the facsimile apparatus communicates via the e-mail-based Internet. This can prevent any conventional communication error owing to a delay on the
25 Internet.

[Other Embodiments]

The object of the present invention is realized even by supplying a storage medium storing software program codes for realizing the functions of the above-described embodiments to a system or apparatus, and causing the
5 computer (or a CPU or MPU) of the system or apparatus to read out and execute the program codes stored in the storage medium.

In this case, the program codes read out from the storage medium realize the functions of the above-described
10 embodiments by themselves, and the storage medium storing the program codes constitutes the present invention.

As a storage medium for supplying the program codes, a floppy disk, hard disk, optical disk, magneto-optical disk, CD-ROM, CD-R, magnetic tape, nonvolatile memory card, ROM,
15 or the like can be used.

The functions of the above-described embodiments are realized not only when the readout program codes are executed by the computer but also when the OS (Operating System) running on the computer performs part or all of actual
20 processing on the basis of the instructions of the program codes.

The functions of the above-described embodiments are also realized when the program codes read out from the storage medium are written in the memory of a function expansion board
25 inserted into the computer or a function expansion unit connected to the computer, and the CPU of the function

expansion board or function expansion unit performs part or all of actual processing on the basis of the instructions of the program codes.

As has been described above, each of the
5 above-described embodiments can provide a facsimile apparatus for reliably transmitting information of a target original by facsimile communication via the Internet, control method therefor, and computer-readable storage medium.

10 Note that the facsimile apparatus according to each of the above-described embodiments is connected to the provider by dial-up operation prior to Internet communication. However, the present invention is not limited to this system configuration, and can also be
15 applied to a facsimile apparatus for performing Internet communication via a leased line.

As many apparently widely different embodiments of the present invention can be made without departing from the spirit and scope thereof, it is to be understood that
20 the invention is not limited to the specific embodiments thereof except as defined in the appended claims.

WHAT IS CLAIMED IS:

1. A facsimile apparatus capable of performing facsimile communication via the Internet, comprising:

communication means capable of performing
5 session-based facsimile communication and e-mail-based facsimile communication via the Internet; and
control means for selecting either one of session-based data communication form and e-mail-based data communication form in accordance with a selected
10 transmission mode, and causing said communication means to execute facsimile communication in accordance with the selected data communication form.

2. The apparatus according to claim 1, wherein when the transmission mode is set to automatic selection, said
15 control means selects the e-mail-based data communication form for an A4 original size, and the session-based data communication form for a B4 or A3 original size.

3. The apparatus according to claim 1, wherein said apparatus further comprises detection means for detecting
20 a signal delay time to a calling destination, and

said control means selects the e-mail-based data communication form when the signal delay time detected by said detection means is longer than a predetermined time, and selects the session-based data communication form when
25 the signal delay time is shorter than the predetermined time.

4. The apparatus according to claim 3, wherein said apparatus further comprises registration means for registering, in correspondence with the calling destination, a data communication form which is selected
5 by said control means and used for facsimile communication to the calling destination, and

said control means selects a data communication form for communication to a current calling destination on the basis of information registered in said registration means
10 prior to detection of the signal delay time by said detection means, and if said control means cannot select any data communication form, detects the signal delay time by said detection means.

5. The apparatus according to claim 1, wherein said
15 apparatus further comprises second detection means for detecting a reception capability of an external device at a calling destination, and

said control means changes a transmission original size in accordance with the reception capability detected
20 by said second detection means.

6. The apparatus according to claim 5, wherein said control means converts a B4- or A3-size original into an A4-size original in accordance with the reception capability.

25 7. A facsimile apparatus control method capable of performing facsimile communication via the Internet,

comprising the steps of:

selecting either one of session-based data communication form and e-mail-based data communication form in accordance with a selected transmission mode; and

5 causing a communication unit capable of performing session-based facsimile communication and e-mail-based facsimile communication to execute facsimile communication in accordance with the selected data communication form.

8. The method according to claim 7, wherein when the
10 transmission mode is set to automatic selection, the e-mail-based data communication form is selected for an A4 original size, and the session-based data communication form is selected for a B4 or A3 original size.

9. A computer-readable storage medium which stores a
15 communication program for performing facsimile communication via the Internet, the communication program comprising:

a code of the communication step capable of performing session-based facsimile communication and
20 e-mail-based facsimile communication via the Internet; and

a code of the control step of selecting either one of session-based data communication form and e-mail-based data communication form in accordance with a selected transmission mode in executing communication by the code
25 of the communication step, and executing facsimile communication in accordance with the selected data

communication form.

10. The medium according to claim 9, wherein the code of the control step comprises, when the transmission mode is set to automatic selection, selecting the e-mail-based data communication form for an A4 original size, and the session-based data communication form for a B4 or A3 original size.

11. A computer-readable storage medium which stores a communication program for performing facsimile communication via the Internet, the communication program comprising:

a code of the selection step of selecting either one of session-based data communication form and e-mail-based data communication form in accordance with a selected transmission mode; and

a code of the control step of causing a communication unit capable of performing session-based facsimile communication and e-mail-based facsimile communication to execute facsimile communication in accordance with the data communication form selected by the code of the selection step.

12. The medium according to claim 11, wherein the code of the control step comprises, when the transmission mode is set to automatic selection, selecting the e-mail-based data communication form for an A4 original size, and the session-based data communication form for a B4 or A3 original size.

ABSTRACT OF THE DISCLOSURE

In facsimile-communicating an original when the Internet selection state in an operation unit is set to "automatic selection", the original is communicated by
5 selecting the e-mail-based Internet for an A4 original size, and the session-based Internet for a B4 or A3 original size. At the same time, the original information is transmitted in accordance with the transmission mode of its own apparatus, the encoding method determined based on the
10 reception capability of a facsimile apparatus at a reception destination, and the receiving-side output original size and resolution.

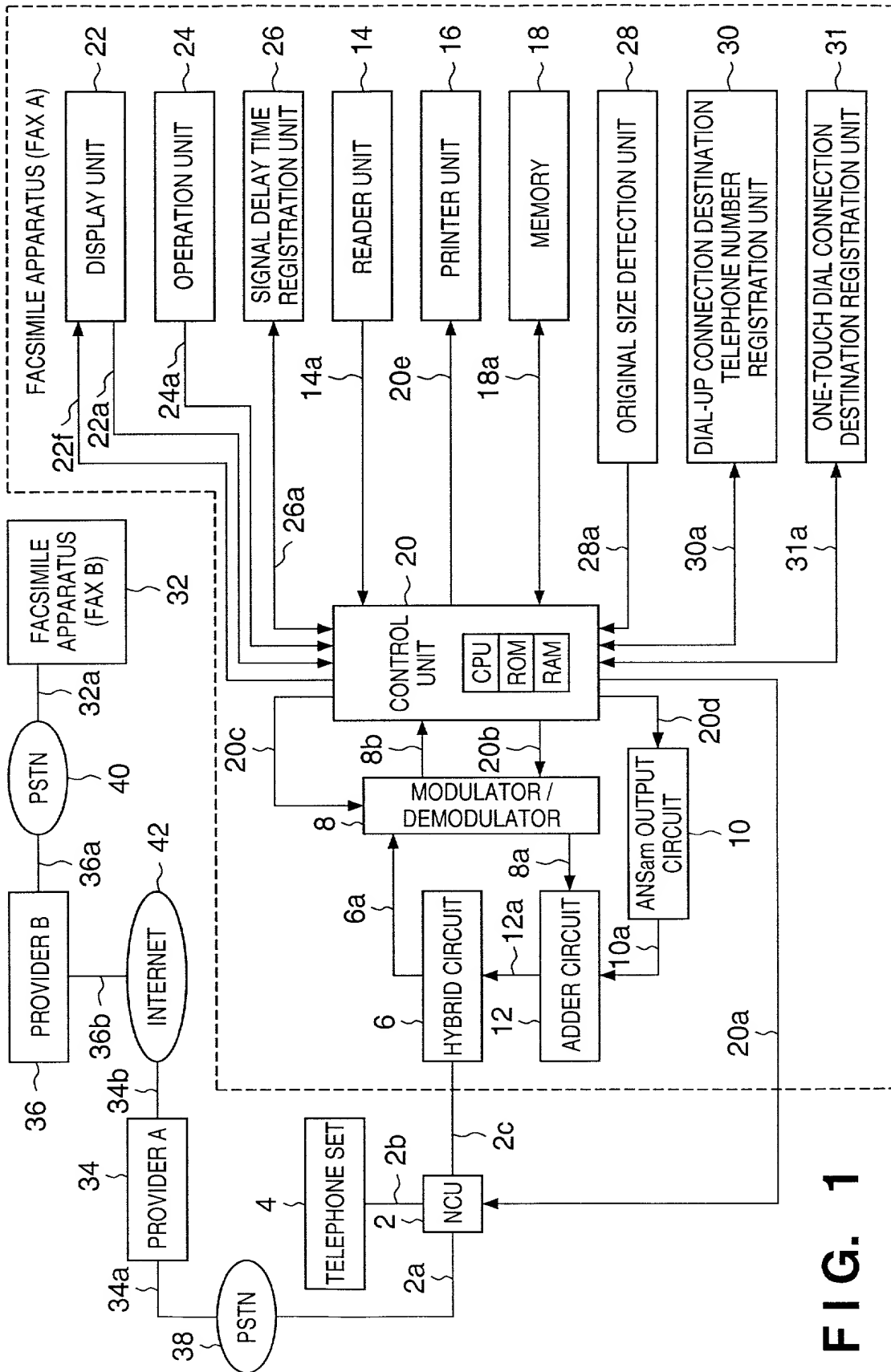


FIG. 1

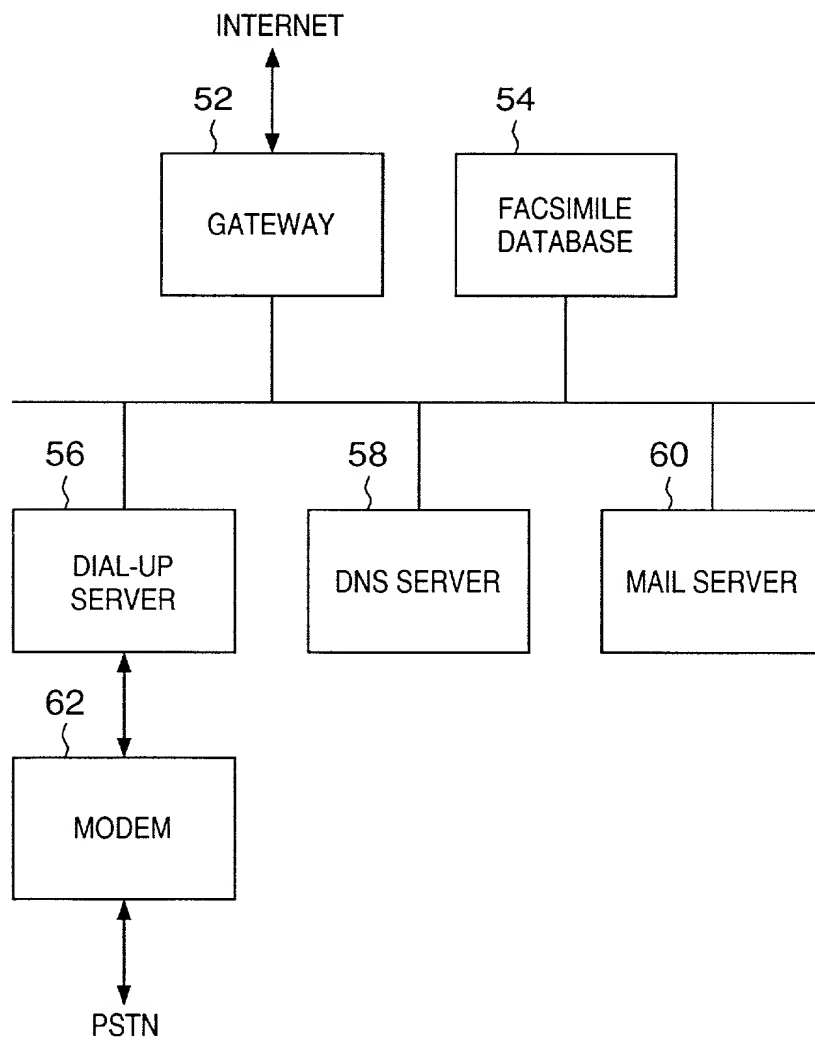
FIG. 2

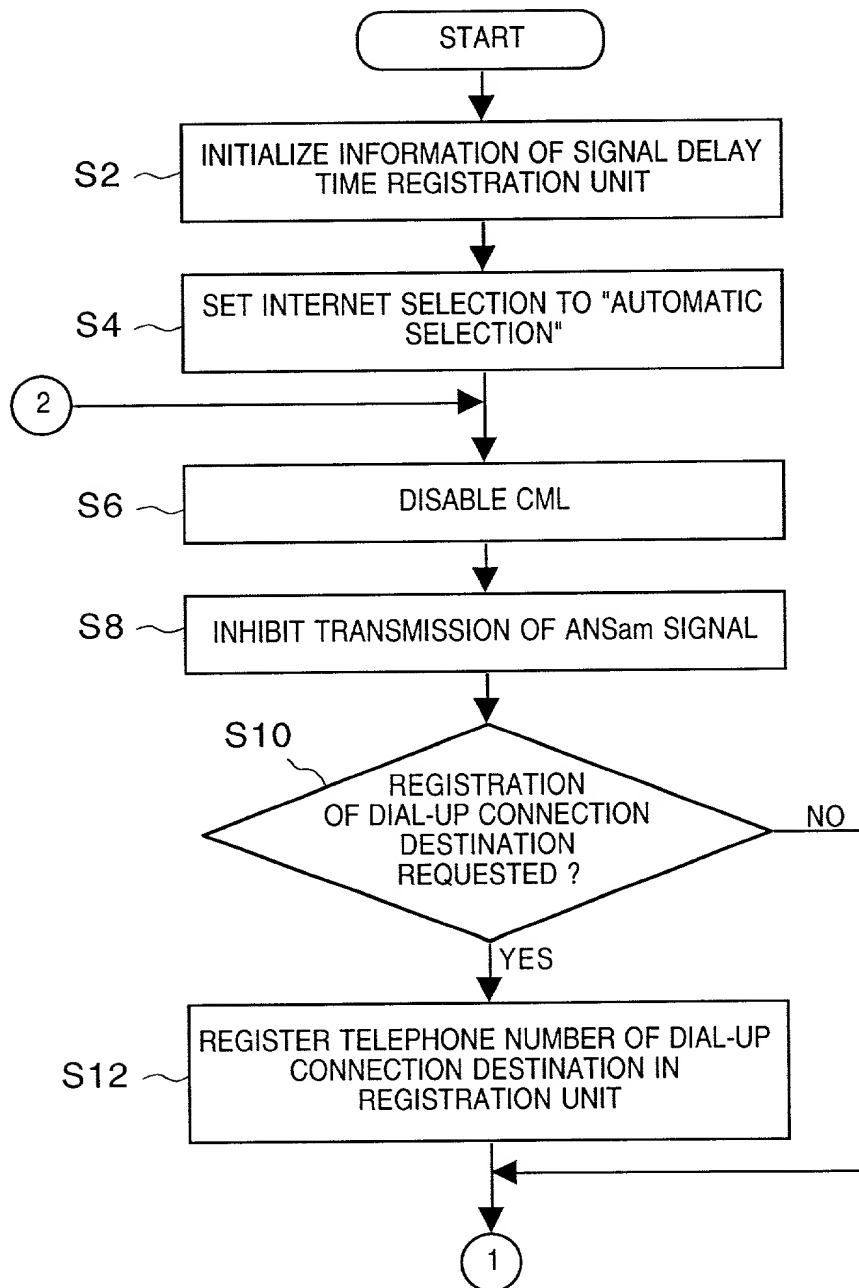
FIG. 3

FIG. 4

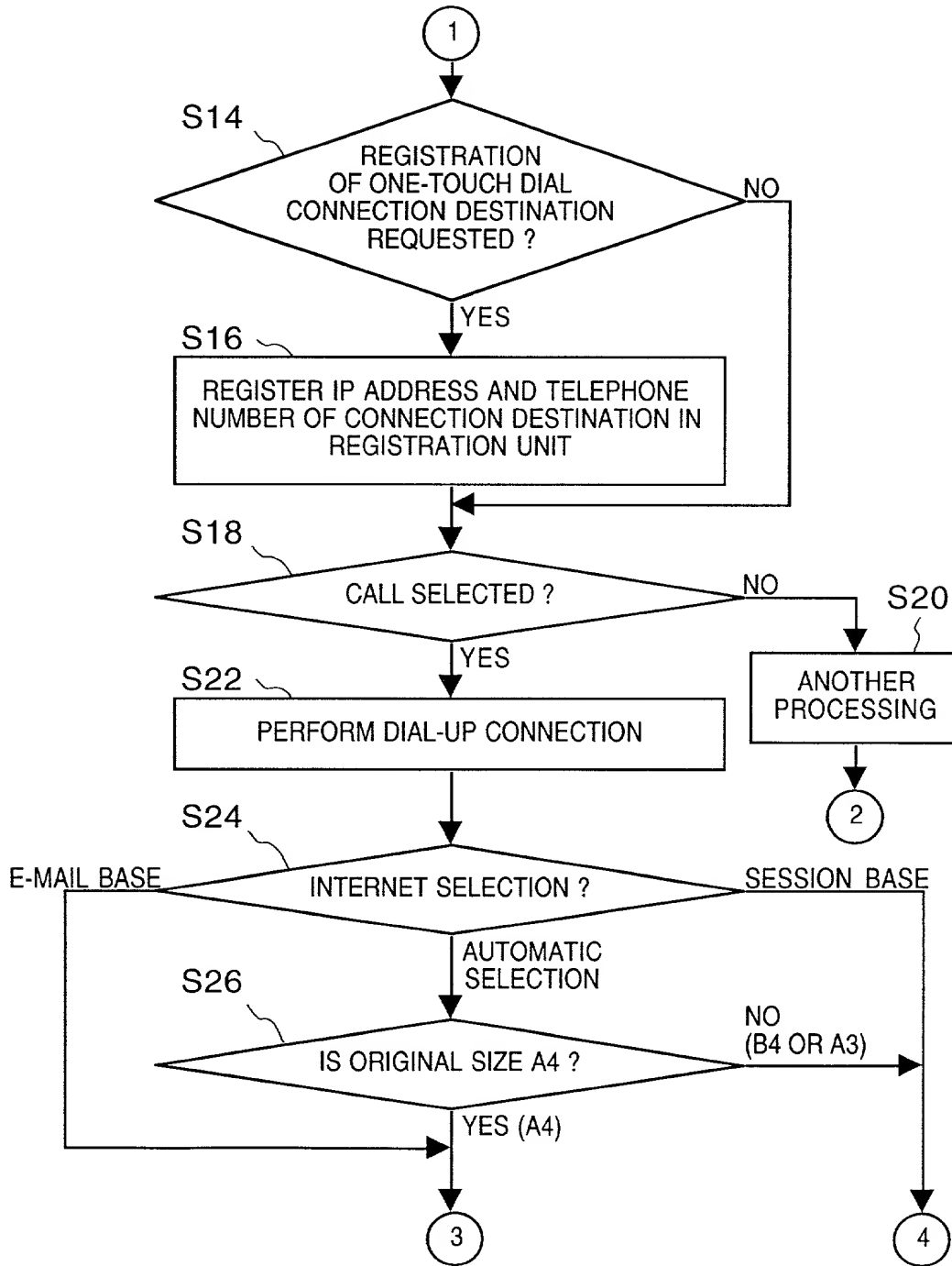


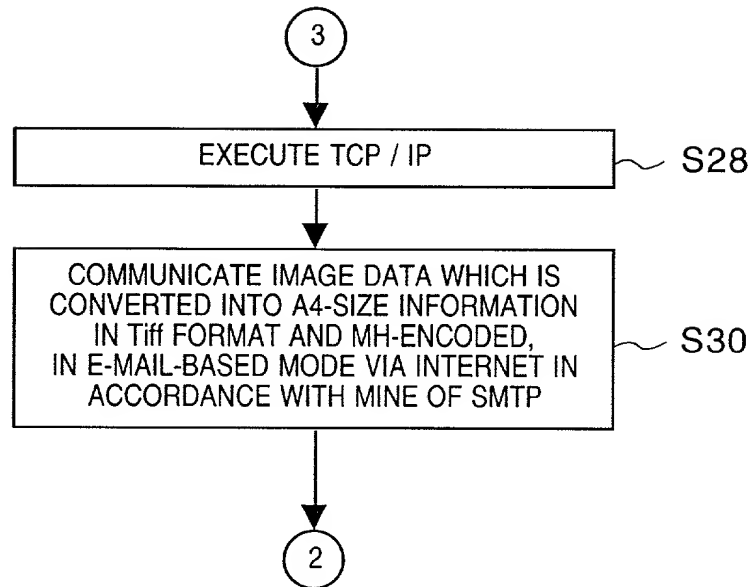
FIG. 5

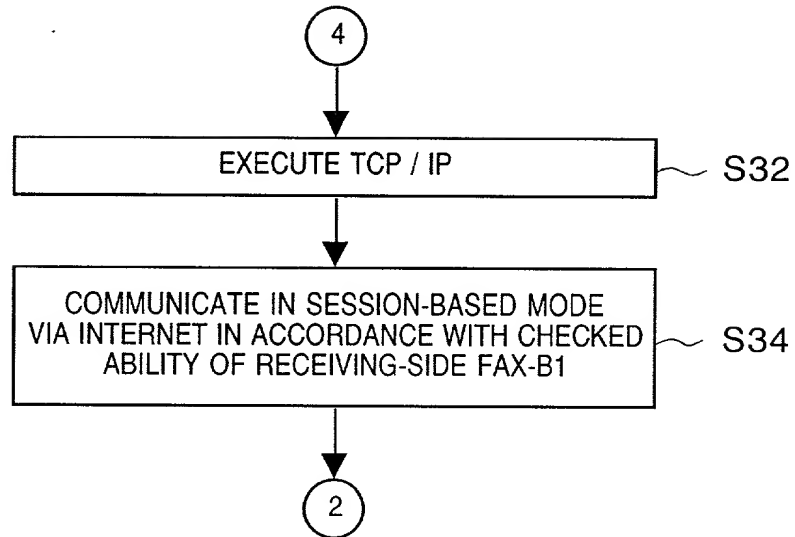
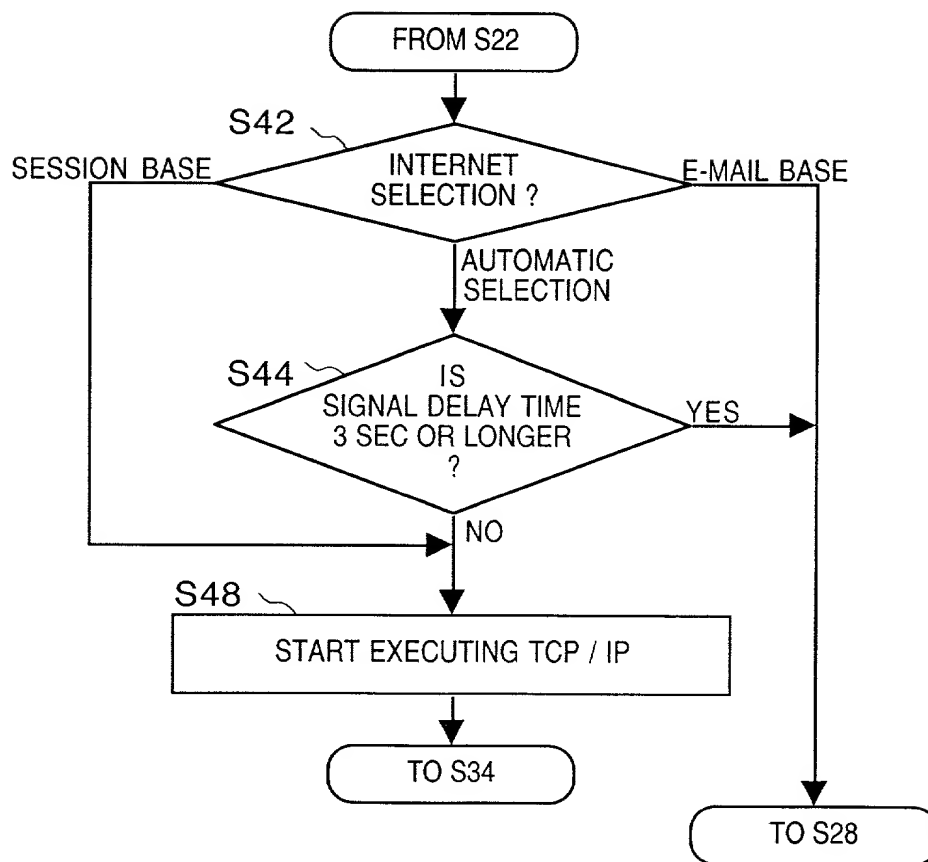
FIG. 6

FIG. 7



COMBINED DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION

(Page 1)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

FACSIMILE APPARATUS, CONTROL METHOD THEREFOR, AND COMPUTER-
READABLE STORAGE MEDIUM

the specification of which ☒ is attached hereto ☐ was filed on _____ as United States
Application No. or PCT International Application No. _____
and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b), of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designates at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed:

<u>Country</u>	<u>Application No.</u>	<u>Filed (Day/Mo./Yr.)</u>	(Yes/No) <u>Priority Claimed</u>
JAPAN	10-290951	OCTOBER 13, 1998	YES

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

<u>Application No.</u>	<u>Filed (Day/Mo./Yr.)</u>	<u>Status (Patented, Pending, Abandoned)</u>
N/A		

I hereby appoint the practitioners associated with the firm and Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to the address associated with that Customer Number:

FITZPATRICK, CELLA, HARPER & SCINTO
Customer Number: 05514

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole or First Inventor TAKEHIRO YOSHIDA

Inventor's signature _____

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